Apparatus for preventing rounding errors when transform coefficients representing a motion picture signal are inversely transformed

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Abstract of **EP0903944**

Mismatch error occur in the local decoder of a MPEG-standard compressor for a motion picture signal, and in an MPEG-standard expander for a compressed motion picture signal. This is because of the lack of a standard for rounding results of *.5 (* is an integer) obtained when a set of transform coefficients resulting from compressing the motion picture signal is inversely orthogonally transformed. The invention prevents mismatch errors by preprocessing the set of transform coefficients prior to the inverse orthogonal transform. The transform coefficients in the set are summed, and the parity (odd or even) of the sum is judged. When the parity of the sum is judged to be even, the parity of one of the transform coefficients in the set is inverted to provide a parity-inverted transform coefficient. This makes the parity of the sum odd. Then, when the set of transform coefficients including the parity-inverted transform coefficient is inversely othogonally transformed, none of the results of the orthogonal transform will have a value of *.5.
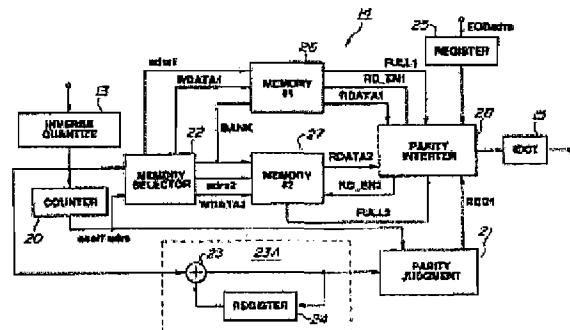

FIG.8

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